WHAT IS CLAIMED IS:

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1. An optical device comprising:

a first I/O waveguide carrying an optical signal with a plurality of wavelengths;

a second I/O waveguide carrying a first wavelength of the plurality of wavelengths;

a third I/O waveguide carrying a second wavelength of the plurality of wavelengths; and

a single-side-pass filter optically coupled to the first I/O waveguide, wherein the first single-side-pass filter reflects a first wavelength between the first I/O waveguide and the second I/O waveguide and the first single-side-pass filter passes a second wavelength between the first I/O waveguide and the third I/O waveguide.

2. The optical device of claim 1 further comprising:

a first collimator assembly (440) comprising a GRIN lens (442) optically coupled to the first single-side-pass filter, a first waveguide optically coupled to the first I/O waveguide, and a second waveguide optically coupled to the second I/O waveguide, wherein the first single-side-pass filter reflects the first wavelength between the first I/O waveguide and the second I/O waveguide through the second waveguide of the first collimator assembly.

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3. The optical device of claim 2 further comprising:

a second collimator assembly comprising a GRIN lens optically coupled to the first single-side-pass filter and a first waveguide, wherein the first single-side-pass filter passes the second wavelength between the first I/O waveguide and the third I/O waveguide through the first waveguide of the second collimator assembly.

4. The optical device of claim 3 further comprising:

a third collimator assembly comprising a GRIN lens, a first waveguide optically coupled to the second waveguide of the first collimator assembly; and a second waveguide;

a fourth collimator assembly comprising a GRIN lens and a first waveguide; and

a second single-side-pass filter optically coupled to the GRIN lens of the third collimator assembly and the GRIN lens of the fourth collimator assembly, wherein the second single-side-pass filter reflects a third wavelength of the plurality of wavelengths between the first waveguide of the third collimator assembly and the second waveguide of the third collimator assembly and passes the first frequency between the first waveguide of the third collimator assembly and the first waveguide of the fourth collimator assembly.

5. The optical device of claim 4 further comprising:

a fifth collimator assembly comprising a GRIN lens, a first waveguide optically coupled to the first waveguide of the second collimator assembly; and a second waveguide;

a sixth collimator assembly comprising a GRIN lens and a first waveguide; and

a third single-side-pass filter optically coupled to the GRIN lens of the fifth collimator assembly and the GRIN lens of the sixth collimator assembly, wherein the third single-side-pass filter reflects a fourth frequency of the plurality of optical signals between the first waveguide of the fifth collimator assembly and the second waveguide of the fifth collimator assembly and passes the second wavelength between the first waveguide of the fifth collimator assembly and the waveguide of the sixth collimator assembly.

6. The optical device of claim 2 wherein the first collimator assembly and the second collimator assembly and the first single-side-pass filter are an integrated assembly.

7. The optical device of claim 1 wherein the first single-side-pass filter is a long-pass filter.

8. The optical device of claim 1 wherein the first single-side-pass filter is a short-pass filter.

9. The optical device of claim 5 wherein specified wavelengths for the first, second, and third single-side-pass filters are separated by about 25.6 nanometers.

10. The optical device of claim 5 wherein a specified wavelength of the first single-side-pass filter is about 1550.02 nanometers, a specified wavelength of the second single-side-pass filter is about 1524.38 nanometers, and a specified wavelength of the third single side-pass filter is about 1575.62 nanometers.

11. An optical system including an optical device as described in claim 1.

12. The optical device of claim 1 further comprising:

a fourth I/O waveguide carrying a third wavelength of the plurality of wavelengths; and

a second single-side-pass filter, wherein the second single-side-pass filter reflects the third wavelength between the first I/O waveguide and the fourth I/O waveguide and passes the second wavelength between the first I/O waveguide and the third I/O waveguide.

13. The optical device of claim 9 further comprising:

a fifth I/O waveguide carrying a fourth wavelength of the plurality of wavelengths; and

a second single-side-pass filter, wherein the second single-side-pass filter reflects the fourth wavelength between the first I/O waveguide and the fifth I/O waveguide and passes the second wavelength between the first I/O waveguide and the third I/O waveguide.

14. The optical device of claim 13 wherein the first, second and third single-side-pass filters are separated by about 25.6 nanometers.

15. The optical device of claim 1 further comprising:

a first GRIN lens optically coupled between first I/O waveguide and the first single-side-pass filter; and

a second GRIN lens optically coupled between the third I/O waveguide and the first single-side-pass filter.

16. The optical device of claim 15 further comprising a third GRIN lens optically coupled between the second I/O waveguide and the first single-side-pass filter.

17. The optical device of claim 1 further comprising a spherical dielectric lens optically coupled between the second I/O waveguide and the first single-side-pass filter.

18. The optical device of claim 1 wherein the first single-side-pass filter is curved.

19. An optical device comprising:

first and second collimating lenses, each of the collimating lenses comprising:

a dual capillary GRIN lens with first and second waveguide terminals;

an optical filter coupled to the dual capillary GRIN lens;

a single capillary GRIN lens coupled to the optical filter; and

wherein the first waveguide terminal of the first collimating lens is optically coupled to the first waveguide terminal of the second collimating lens.

20. The optical device of claim 14 further comprising::

a third collimating lens comprising:

a dual capillary GRIN lens with first and second waveguide terminals;

an optical filter coupled to the dual capillary GRIN lens;

a single capillary GRIN lens coupled to the optical filter; and

wherein the first waveguide terminal of the third collimating lens is optically coupled to the single capillary GRIN lens of the first collimating lens.